

## REMARKS

Claims 1-20 are pending in this application. Claims 13-20 are withdrawn from consideration as being drawn to a non-elected invention. The specification is objected to due to a sentence fragment on page 2. Claims 1-4 and 6-11 are rejected under 35 USC 102(a) as being anticipated by Freling. Claims 1, 2, 4, 5, 7, 8, 10 and 12 are rejected under 35 USC 102(a) as being anticipated by Seals.

The applicants traverse the rejections of the claims under 35 USC 102(a). MPEP 2131 provides that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as contained in the claim. The elements must be arranged as required by the claim.

The Examiner admits that the cited prior art patents by Freling and Seals do not expressly teach all of the limitations of any one of the claims. However, the Examiner takes the position that the final prior art product described in these patents will necessarily or inherently have voids with cracks that extend between the void and the surface of the ceramic coating because the ceramic layer is deposited in a conventional manner, and comprises a ceramic with particles having a thermal expansion higher than the ceramic material.

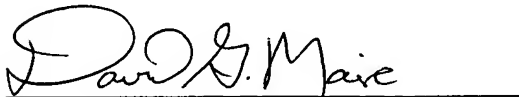
With regard to the rejection of claims 1-4 and 6-11 as being anticipated by Freling, the Examiner states "it is fully expected that cracks would form." The applicant submits the attached Declaration of Ramesh Subramanian under 37 CFR 1.132 as evidence that the thermal barrier coating of Freling would not necessarily or inherently form such cracks. The Declaration includes a cross-sectional photomicrograph of a typical abradable thermal barrier coating of the type described by Freling showing no such cracks. Thus, the rejection of claims 1-4 and 6-11 is not supported by the prior art and should be withdrawn.

With regard to the rejection of claims 1, 2, 4, 5, 7, 8, 10 and 12 as being anticipated by Seals, the Examiner notes that the prior art thermal barrier coating material has high porosity (hollow ceramic particles) and microcracks. In the

attached Declaration, Dr. Subramanian states that such microcracks are known to be randomly oriented and are not necessarily or inherently extending from embedded hollow structures to the free surface. Thus, the rejection of claims 1, 2, 4, 5, 7, 8, 10 and 12 is not supported by the prior art and should be withdrawn.

The applicant has added new claims 21-23 and has cancelled non-elected claims 13-20. Reconsideration of the amended application in light of the above Remarks and allowance of claims 1-12 and 21-23 are respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, reading "David G. Maire", is written over a horizontal line.

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